

# Invasive Plants Treatment Proposed Action

## Malheur National Forest

### April 2011

## 1. Background

The Forest Service proposes to eradicate, control, or contain invasive plants within the Malheur National Forest.<sup>1</sup> The Proposed Action is to treat invasive plants using

**Invasive plants** are defined as “non-native plants whose introduction does or is likely to cause economic or environmental harm or harm to human health” [Executive Order 13122].

integrated methods including chemical (herbicides and adjuvants), physical treatments (mechanical and manual treatment), and biological controls. These treatments will be used on existing infestations (approximately 2,290 acres) or new infestations, including new target plant species that currently are not found on the Forest. Treatment could be anywhere on Forest Service system lands including rangelands, timber harvest areas, along roads and road rights-of-way (including decommissioned roads), along trail routes, at dispersed and developed recreation sites, and on other disturbed sites (i.e. fires, flood events, and rock sources) where invasive plants are

located. Mulching, seeding and planting of competitive, desirable vegetation may occur to restore treated sites.

Field inventories have identified about 30 different invasive plant species within the boundaries of the Forest. Species of greatest concern include Canada thistle, houndstongue, diffuse knapweed, Dalmatian toadflax, whitetop, and sulfur cinquefoil, among others. Our ability to prevent or minimize the adverse impacts of these and other invasive plants is greatest if populations can be treated while they are small and in the early stages of invasion. Additional benefits of early stage treatments include reduced treatment costs, less chemical use, and less ground and habitat disturbance.

The Malheur National Forest has been treating invasive plants without the authorization to rapidly respond to new infestations or the use of herbicides (an exception is that herbicides have been used in spot treatments (totaling 10-20 acres/year) along roads on the former Snow Mountain Ranger District – Ochoco National Forest). A previous attempt to authorize the use herbicides was made, but the project was litigated and enjoined. In December 2002, the U.S. District Court (*Blue Mountain Biodiversity Project v. US Forest Service*, CV 01-703-HA) concluded that the Malheur National Forest Environmental Assessment for invasive plant control was insufficient because it failed to address new information regarding herbicides and the causes of the spread of invasive plants.

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<sup>1</sup> Includes the Snow Mountain Ranger District (Ochoco National Forest) as administered by the Malheur National Forest, Emigrant Creek Ranger District, as authorized under the Ochoco National Forest Plan Amendment # 16

However, many invasive target species require herbicides for effective treatment. Ten years of monitoring has shown physical treatments alone cannot control invasive species. The *Pacific Northwest Region Invasive Plant Program Preventing and Managing Invasive Plants FEIS* (referred to as the R6 2005 FEIS) (USDA Forest Service, 2005a) and *Record of Decision for Invasive Plant Program Management* (referred to as the R6 2005 ROD) (USDA Forest Service 2005b). Vectors and causes of invasive plant spread were explored in detail and new standards for prevention, site treatment and restoration, and an updated list of herbicides for effectively responding to invasive plant threats were added.

The prevention standards have been applied to land use decisions made since the R6 2005 ROD was adopted. However, the treatment and restoration part of the Malheur invasive plant control program is not currently consistent with the 2005 standards and needs to be updated.

In addition, after the R6 2005 ROD signed, a new herbicide (aminopyralid) became available. Aminopyralid (also known as Milestone<sup>TM</sup>) is specifically labeled for treatment of invasive plants in forested settings. This herbicide is effective on hard to control invasive plant species such as hawkweed, knapweed, and Canada thistle. It is preferred by invasive plant specialists at the state and county level.

## **2. Purpose and Need**

This EIS is being prepared to allow the Malheur National Forest to treat invasive plant species within the direction found in the R6 2005 FEIS and ROD. New and existing invasive plant populations on the Malheur National Forest require more timely, effective and cost-efficient treatment actions to comply with the intent of the R6 2005 ROD (which was incorporated into the Malheur Forest Plan). The purpose of treating invasive plant infestations is to maintain or improve the diversity, function, and sustainability of desired native plant communities and other natural resources that can be adversely impacted by invasive plant species. Without action, invasive plant populations will become increasingly difficult and costly to control and will further degrade forest and grassland ecosystems.

Based on surveys, inventories and anecdotal reports accumulated over the last several years, target invasive species occupy approximately 2,290 acres on the Forest. The infestations are broadly distributed, often occurring in areas of high spread potential (e.g., along roads).<sup>2</sup> There are likely additional invasive plant sites that have not yet been identified.

Invasive plants will continue to expand and spread every year without effective treatment (the R6 2005 FEIS estimated a rate of 8-12 percent per year; this rate would likely be reduced due to adherence to prevention standards in the R6 2005 ROD).

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<sup>2</sup> Invasive annual grasses occupy over tens of thousands of acres on Malheur National Forest. These are not considered target species in this project because they are so widespread, but they would not be protected as native plants and these species could potentially be treated in discrete areas.

### 3. Proposed Action

The Proposed Action is to treat invasive plants using integrated methods including chemical (herbicides and adjuvants), physical treatments (mechanical and manual treatment), and biological controls. These treatments will be used on existing infestations (approximately 2,290 acres) or new infestations, including new plant species that currently are not found on the Forest. Maps and descriptions of invasive plant treatment areas can be found on the Malheur National Forest website:

[www.fs.fed.us/r6/malheur/land&resourcesmanagement/projects/](http://www.fs.fed.us/r6/malheur/land&resourcesmanagement/projects/).

The following table summarizes the acres of mapped infestations of invasive plants by species.

Common Name of Invasive Plant	Acreage of Mapped Infestations
Medusa Head rye	11
Canada Thistle	1051
Yellow Starthistle	2
Houndstongue	346
Mediterranean Sage	<1
Sulfur Cinquefoil	188
Leafy Spurge	12
St. Johnswort	130
Dalmation Toadflax	172
Spotted Knapweed	99
Diffuse Knapweed	89
Whitetop	85
Tansy Ragwort	17
Scotch Thistle	24
Cheatgrass	21
Musk Thistle	11
Yellow Toadflax	10
Russian Knapweed	4
Poison Hemlock	2
Perennial Pepperweed	2
Field Bindweed	1
Teasel	1
Scotch Broom	1
Purple Loosestrife	<1
Black Henbane	<1
Squarrose Knapweed	<1
Meadow Knapweed	<1
Bull Thistle	<1
Soapwort	<1
Dyer's woad	< 1
<b>Total Appx. Infested Acres</b>	<b>2,287</b>

Treatment could be anywhere on Forest Service system lands including rangelands, timber harvest areas, along roads and road rights-of-way (including decommissioned roads), along trail routes, at dispersed and developed recreation sites, and on other disturbed sites (i.e. fires, flood events, and rock sources) where invasive plants are located. Mulching, seeding and planting of competitive, desirable vegetation may occur to restore treated sites.

Ground based herbicide application methods would be used based on accessibility, topography, and the size of treatment areas. No aerial treatment is proposed nor is treatment in designated wilderness areas. Spot and selective spraying where individual and groups of plants are targeted would be the primary method of application; however some herbicide broadcasting may occur from ATV or trucks. Broadcast treatments would occur when necessary based on the size, density or distribution of target species. ATVs may be used to facilitate broadcast in otherwise inaccessible areas.

Ongoing monitoring of each site would dictate the treatment method, whether herbicides are needed, and the type of continued or follow-up treatments needed. Acreage treated would average up to 2,300 acres per year, with a total of 23,000 acres treated over the life of the project (about 10 years). Herbicide treatments would be done in accordance with label advisories, USDA Forest Service policies, and Forest Plan management direction. Specific design features would be applied to minimize or eliminate the potential for invasive plant treatments to adversely affect non-target plants, animals, human health, water quality, and aquatic organisms.

The R6 2005 ROD authorized the use of ten herbicide active ingredients. Not all effective herbicides would be used at one time on a given target species. A given weed site would usually be treated with only one of the 10 approved herbicides (some tank mixes may be needed); however, a different herbicide might be used in a follow-up treatment. The more herbicides choices in the toolbox, the better the effected expected over time (R6 2005 FEIS page 4-18, 4-26).

A site-specific, non-significant amendment to the Malheur Forest Plan is also proposed to add an 11<sup>th</sup> herbicide, aminopyralid to the list of authorized herbicides for use on the Forest to treat invasive plants. Aminopyralid was not labeled for wildland use in 2005; however, the R6 2005 ROD Standard 16 acknowledges that new herbicides may be added given proper analysis. Aminopyralid has undergone extensive risk assessment since 2005. It is proposed for use because it would increase the effectiveness of treatment for some broadleaf target species, and reduce potential adverse impacts, compared to those herbicides already authorized in the R6 2005 ROD.

## **Decisions to be Made**

The Forest Supervisor will make the following decisions based on the interdisciplinary analysis.

- Whether or not to authorize site-specific invasive plant treatments using herbicides and other methods.
- Whether or not to implement an Early Detection and Rapid Response process for infestations that are detected over the next 5-15 years.
- What mitigation measures (design features) are required.
- What monitoring and adaptive management will occur.